Marketing research

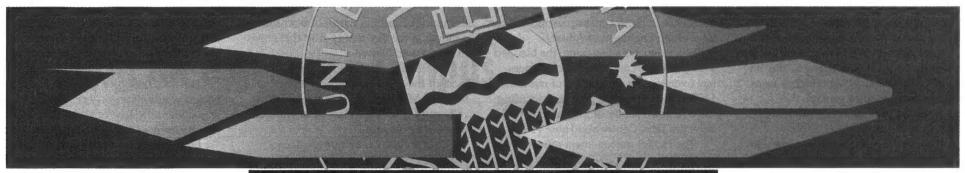
An international conference examines ways of bringing research to the marketplace.

How green is Green?

A group of campus academics wants the U of A to formally adopt environmentally sensitive policies; administrators say the university is already a leader in conservation.

The black heart

Dr. Valeri Frolov tries to determine what a black hole "looks" like.



Volume 39 Issue 12

FEBRUARY 22, 2002

http://www.ualberta.ca/folio

The Cuban connection

Academy Strings to trade performances for knowledge

By Richard Cairney

anya Prochazka is excited about leading the University of Alberta Academy Strings on a concert tour of Cuba, but it may surprise some to know why.

As well as performing concerts, Prochazka and her U of A charges will be conducting workshops with Cuban students and teachers. "Essentially, they should be teaching us," she said. "I want them to teach us rather than have it the other way around."

Prochazka, a professor of cello and chamber music in the Department of Music, is the conductor and musical director of the Academy Strings, as well as a respected scholar and musician. She is the grandchild of Albert Coates, the famous conductor of the Kirov Opera in St. Petersburg and the London Symphony Orchestra. She began playing the cello at the age of seven. What might she stand to learn from Cuban musicians?

Anything they have to offer, Prochazka says.

"I want to learn, and the students want to learn, about an entirely different style of music. Cuban music travels in the popular way, we listen to it in salsa music, but there are African, French, Spanish and Italian roots," she said. "They take pop and folk and classical ideas and throw them all into one pot. The rhythmic structures of their music are very complex. It's something we're not exposed to here."

The 33-member orchestra was formed in 1979. Its roster boasts student membership not only from the Department of Music, but also from engineering, nursing and medicine. The group will perform five concerts during its Feb. 18 - 25 tour, and Prochazka expects they'll be playing



Percussionist Aaron Gervais and members of the University of Alberta Academy Strings orchestra were rehearsing in preparation for a tour of Cuba. Gervais had written new arrangements of Cuban music in advance of the concert tour.

to full houses.

Cuban audiences will hear Canadian arrangements of Cuban music by orchestra member Aaron Gervais. He revisited the work of famed Cuban musicians Jésus Chucho Valdes and Eliseo Grenet, one of the musicians responsible for the emergence of Cuban music in America during

Gervais scoured his record collection to pick out songs he thought would translate well to strings. It was a daunting task. "Bolero, for example, was piano based and percussion. It is nothing like a string orchestra. It was a jazz piece and you can't get 30 string musicians to improvise like that."

The new arrangements represent a

compromise in two directions, adapting percussion-based music to strings and the string musicians to the music. And the U of A musicians are catching on, says Mario Allende, an orchestra member and percussionist who has studied in Cuba and leads the local Latin music group Bomba!. The experiment seems to be working.

"They are playing it as well as I could ever have hoped," said Allende. "The Cubans will be able to appreciate the effort that was made to study their music and that is something these kids can be proud of - this has turned into a respectable concert."

"We're being schooled very well in the Cuban style," Prochazka said of instruction from percussionists Gervais and Allende. "Both percussionists are very experienced and they're teaching us what to do."

Allende has sought out instruction from Cuban masters, travelling to study in Cuba three times and meeting with Cuban musicians on tour. The ebb and flow of Cuban music's popularity go back many years and can't be credited to specific musicians. The most recent example is the group of musicians in Buena Vista

"The Buena Vista people—I know them and they are great people, but I know other people who are just as good but will never be known outside of Cuba because of the marketing machine that took over. To me, they are all stars.'

The orchestra's final concert, at the Basilica de San Francisco de Asis in Havana, is being staged with a Cuban orchestra. The two groups will perform Gervais' arrangements during the concert.

"We just hope to be told if we are not quite getting it right," Prochazka said.



KEYNOTE **S**PEAKER:

New York's hottest Nanotechnology Venture Capitalist **JOSH WOLFE**, speaks on "Nanotech: Hype, Hope & Home Runs; What This Means for Edmonton's Future"

> Economic Development Edmonton Ticket Order Form: www.ede.org

Campus construction gurus earn provincial praise

Project management office partnership running smoothly

By Richard Cairney

If you told Doug Dawson in 1999 that his office would soon be recognized as one of the most efficient of its kind, he might not have believed you. Struggling to stay on top of projects and facing criticism from the provincial auditor general, the University of Alberta needed to reinvent the way it handled capital projects.

It did, by forming a partnership with Stantec Consulting Ltd. to create a project management office. The group has established a more proactive approach to development and renovations on campus, allowing foresight and planning to govern the way such projects are handled. The office's efforts recently earned an award of



excellence in project management from the Consulting Engineers of Alberta.

Since the unit's inception, the blended group of U of A and Stantec employees has overseen the completion of more than \$158 million in capital projects, including the two new Faculty of Engineering buildings, the Telus Centre and Foote Field.

The project management office is currently planning for \$470 million worth of capital projects, which include the new National Institute for Nanotechnology building, a natural resources engineering facility, a new health sciences research facility and new student housing near Lister Hall.

That's just the big stuff. Since April of 2000, the office has also managed the completion of 539 renovation projects at a total cost of \$26.8 million—an average of \$1.2 million per month.

"Everyone sees the buildings going up, and that's important, but punching

through \$1.2 million worth of renovations a month is the day-to-day stuff that keeps us busy," said Dawson.

"It averages \$1.2 million per month but most of the work we do takes place between May and September-you typically can't renovate a classroom with students in it," he said.

That builds in a unique challenge because most of the university's construction workers are needed as the seasonalsensitive industry is at its peak. Contractors are stretched thin and it's difficult to find skilled trades workers—the high demand drives up prices.

So it's important that the office seeks out planned projects rather than wait for requests to come in with short notice.

"One thing we did not understand fully (in the past) was that there are some particularly tight time constraints associated with some grants," said Dawson. "A request for work might come into our

office in February with the expectation that this new equipment be up and operating by March. That left us no time to do due process."

Hurried, the office would discover a project wouldn't work "because the place was full of asbestos" or that workers faced the challenge of installing modern wet labs "in buildings that were 50 years old and not designed to do that," Dawson said.

On top of everything else, the office often needs to find a temporary home for faculty and staff while facilities are being

Now, the office works closely with capital and strategic planning services, has four-year strategic plans to monitor and, through the facilities alteration request program, meets with deans every fall "to find out what their wish lists are."

"It's a more strategic approach. We can get into buildings earlier and ensure facilities are upgraded and a building is ready."

Mitchell steps down from vice-presidency

Merali and Quinney to oversee portfolio

By Richard Cairney

im Mitchell, acting vice-president (facilities and operations) at the University of Alberta, has announced his resignation, effective February 28. He is choosing to return to the private sector.

"For the last 25 years of my career I've been in a for-profit corporate environment and I still have the desire to work in that kind of environment," said Mitchell, who joined the U of A as associate vice-president (facilities and operations) under the finance and administration portfolio.

Late last year he was named acting vice-president when the board of governors approved the creation of a new vicepresidency to oversee facilities and main-

An engineer who focuses on project management, Mitchell cites the new **Electrical Engineering and Computing** Research Facility and the Engineering Teaching and Learning Centre as projects he's most proud of. "Completing ECERF and ETLC under budget and ahead of schedule and larger than anticipated was a huge success," he said. "It is a success attributable to a lot of people who worked on making that happen."

In his current position and earlier as a private sector consultant, Mitchell established an important foundation for many of the building projects on campus. During his time on campus, the project management office overhauled the way capital

and renovation projects are handled, creating a more efficient and financially responsible process.

"Credit for that is due to people in the facilities and operations group—that is teamwork—everyone is trying to achieve the same objective, to complete all of our projects either on or under budget."

Associate Vice-President (Academic) Art Quinney and Associate Vice President (Finance) Nazim Merali will assume interim responsibilities within the facilities and operations portfolio.

Mitchell said he has no firm plans for the immediate future: "I thought it would be best to clean off my commitments here prior to looking at other opportunities."

Volume 39 Number 12

OFFICE OF THE VICE PRESIDENT (EXTERNAL RELATIONS) OFFICE OF PUBLIC AFFAIRS 6TH FLOOR GENERAL SERVICES BUILDING UNIVERSITY OF ALBERTA EDMONTON, ALBERTA T6G 2H1 LEE ELLIOTT: Director,

Office of Public Affairs **RICHARD CAIRNEY: Editor**

GEOFF MCMASTER: Assistant Editor

Richard Cairney, Simon Kiss, Geoff McMaster, Stephen Osadetz, Ryan Smith, Dr. Donna Wilson **GRAPHIC DESIGN:**

Elise Almeida, Penny Snell, Jennifer Windsor

Folio's mandate is to serve as a credible news source for the University community by communicating accurate and timely information about issues, programs, people and events and by serving as a forum for discussion and debate. Folio is published 20 times per year.

The editor reserves the right to limit, select, edit and position submitted copy and advertisements. Views expressed in Folio do not necessarily reflect University policy. Folio contents may be printed with acknowledgement.

comments and letters should be directed to Richard Cairney, editor, 492-0439 richard.cairney@ualberta.ca

Display advertising

Deadline: 3 p.m. one week prior to publication Clark Johnson, 439-5473, 431-6021 (pager) **Classified Ads** Deadline: 3 p.m. one week prior to publication

Cora Doucette, 492-2325 **Talks and Events**

Deadline: 9 a.m. one week prior to publication Cora Doucette, 492-2325 Fax: 492-2997 cora.doucette@ualberta.ca

ISSN 0015-5764 Copyright 2001



University Alberta

The University of Alberta maintains a database of all alumni. This database is used to send you news about the U of A, including Folio and New Trail, invitations to special events and requests for support. On Sept. 1, 1999, post-secondary institutions were required to comply with the Freedom of Information and Protection of Privacy legislation of the province of Alberta. In accordance with this legislation, please respond to one of the following options:

☐ Please keep my name, or Remove my name from the Folio list.

No response means the University of Alberta assumes an individual wishes to remain on the mailing list.

Dean of Science to head up ARC project

Initiative will examine ways to mitigate industrial pollution

By Richard Cairney

The University of Alberta's dean of science is taking on a five-year project to monitor and complement provincial research on industrial impact on the envi-

Dr. Dick Peter begins a five-year secondment to the Alberta Research Council (ARC) in August as vice president of the ARC's new Integrated Resource Management program. Initially drawing on the council's existing applied research in air monitoring, water treatment, toxicology and health. Peter will be responsible for the development of a "holistic" program to "identify and mitigate short-term and cumulative effects of resource development on human and animal health," said John McDougall, the ARC's managing director and CEO.

"The intent is not to duplicate the work that is already being done but to find out what is being done and what is known and develop strategies to address issues that are outstanding," Peter said. "We plan to pull the research together and develop some strategies for the province. It is an ambitious kind of project and an ambitious kind of vision."

While taking an assessment of ongoing and accomplished research, Peter will look into directing ARC research to fill knowledge gaps. Some of that research, for example, could focus on the issue of waste materials from intensive livestock operations. ARC research already underway is

looking for ways to utilize wastes.

"One of the things ARC is doing is looking at that waste containment and contaminant problem. Can we turn that into a different direction and not have that as a waste burden but maybe develop a product out of that?"

Ultimately, the collected knowledge could result in policy recommendations to the provincial government.

Peter joined the U of A in 1971 and served as chair of the Department of Zoology for eight years. He is nearing the end of 10 years of service as dean of the Faculty of Science. In that time, he has overseen a 25 per cent growth in enrolment in the faculty, which offers nearly 60 Bachelor of Science programs in 40 subject areas, making it one of the most comprehensive science faculties in Canada. In addition, funding for research has tripled to more than \$55 million, and more than \$12 million in scholarships, awards and bursaries are awarded to students each year.

Stepping down from that position and away from the U of A is bittersweet, he

He cites faculty recruitment among his proudest achievements as dean.

"Faculty renewal has been a major achievement, not just for me but for the entire faculty," he said. "We've recruited a large number of excellent new faculty members-135 in last six years. It has been a remarkable success."



Dr. Dick Peter

He's also proud of advances the faculty has made in teaching.

"I think the faculty has an impressive focus on students and providing the best learning opportunities for student development," he said. "Our redevelopment of undergraduate programs and continued development of graduate student programs has been superb. It has really enhanced opportunities for our students."

In research accomplishments, the faculty "has risen to a leadership position nationally and internationally," he said.

With two terms as dean behind him, Peter says it was time for a change.

"There will be a lot of learning with this position," he said. "I need to keep learning. I've done two terms (as dean) and it was a wonderful ride. Now I need some new and different challenges."

Planning for a greener campus

Is the university as environmentally sensitive as it can be?

By Geoff McMaster

We've all heard of the Kyoto Protocol, that international agreement to reduce greenhouse gas emissions, make the world a cleaner place and slow the pace of global warming. But how many of us can claim to be familiar with the Talloires Protocol?

The latter is a document signed by 22 university presidents and chancellors from around the world in 1990 promising to create environmentally sustainable campuses. As of last year, 281 institutions signed the declaration, including 22 from Canada. That document was followed by a similar initiative in Halifax in 1991, this time including business leaders and non-government organizations. And in 1993, university leaders from 90 institutions met in Kyoto to discuss the best ways to minimize damage to the environment and conserve energy on home turf.

To date the University of Alberta hasn't signed any of these declarations. But there are a growing number of people on campus who believe it's high time we were, or at the very least, that we should commit ourselves to the same principles. Calling themselves "For an Environmentally Responsible Campus," and led by Drs. Sandra Niessen (human ecology) and Doug Hube (professor emeritus, physics), the group recently sent a letter to President Rod Fraser and other administrators urging the U of A to take a leadership role in sustainable development. They point out that the university will grow dramatically in the coming decades, bringing new facilities and expansion to the south campus, all at "a time of growing concern about the deteriorating state of the environment locally, nationally and globally."

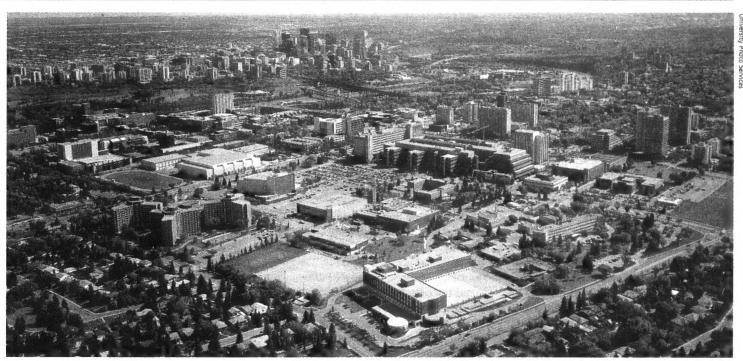
Now is the time, they say, to articulate a vision for a green campus.

"I think everyone who supports the statement has been thinking about this sort of thing for many years," said Hube, referring to the more than 50 faculty members who have so far joined the coalition. "I've spent 30 odd years on this campus and I look at all the inefficiencies and the poor quality of construction from the point of view of energy efficiency, insulation and so on.

"I haven't looked at the new engineering buildings carefully (the Electrical and Computer Engineering Research Facility and the Engineering Teaching and Learning Complex), but I suspect they haven't used the best available insulating procedures, environmentally sensitive techniques or energy-efficient systems. I may be wrong, but I think if they had, we'd have heard about it."

Whether widely known or not, however, university administrators say we are using the most up-to-date conservation practices in planning, building and retrofitting buildings. "I think we do have a leadership role. We are leaders in terms of sustainable building, at least as I understand it now," said Associate Vice-President (Academic) Art Ouinney. "We have just gone through a provincially-led process of looking at all of our facilities and their current functionality. We're probably the most energy efficient campus in Canada in terms of our new buildings and any of the retro-fitting we're doing with existing buildings."

Quinney points to one energy system on campus that uses steam to co-generate electricity, another that monitors electrical use. He says there have also been pro-



How green is our campus? University administrators say we're leaders in sustainable development; others insist we can do even more.

grams encouraging people to turn the lights off and use location lighting as opposed to general lighting, programs which, for the most part, have been effective. In fact since 1975 the university has reduced its energy consumption by some 37 per cent with annual savings of almost \$12 million, and water consumption has gone down over the past 10 years despite increases in facilities and personnel.

The new engineering buildings, as an example, have been designed and built with energy conservation top of mind, says Jim Mitchell, acting vice-president (facilities and operations). "For example, we've put titanium glazing in the windows to reduce energy costs, high-efficient lighting throughout the building and variable frequency drives on all the pumps (and fans) so we can scale things back in unoccupied mode," he said. Energy heat-recovery wheels have also been installed to recover heat lost with exhaust from laboratories.

In addition, lamps across campus have either been removed or replaced to reduce lighting levels. And there is a remote-control monitoring system, including motion sensors, so lights can be turned off in areas not in use.

"It's a major initiative," says Mitchell, adding at this point any further energy savings measures wouldn't show a recovery for at least five years: "all the low-hanging fruit has been picked." He adds that the U of A spends about \$3.5 million per year on energy management programs, taking out loans to do retro-fits and using money saved in greater energy efficiency to pay off the loans.

While all of this is commendable, says the group for an Environmentally Responsible Campus, the university could be doing even more. What's really required is a 'culture change' in which everyone on campus makes an effort to reduce consumption of energy, paper and water. And so they would like to see, "as a first step," a new office and officer of sustainability to steer the course and make sure we stay on track, something like UBC's Sustainability Office. It's easy to pay lip service to highminded initiatives, they argue, but true success depends on "a strong and skillful champion in the central administration."

"I'm not saying the university (pays lip service). But we've seen it elsewhere—the tendency to keep doing things the way you've always done it, saving a few bucks up front, without worrying about the cost of operating downstream," said Hube. "You really need an office or individual who has some power to ensure the best systems are used...No one's keen on increasing administration, but the hope would be someone already on campus could have duties reassigned and take responsibility for this...the potential savings are just huge."

As a second step, Hube and his group say an environmental audit would reveal exactly where we do fall short of ideal practices and give us a blueprint for future planning. The University of Calgary, for example, does one annually.

"I would say an audit is quite necessary," said Dr. David Schindler, our award-winning specialist in water quality. "I've seen some of the audits done at U.S. universities, and I've seen some of the things going on here, such as excessive use of water for lawns, excessive use of lawn mowers, which everyone knows put out lots of air pollutants, more than automobiles

"I suspect that an audit done by someone who knows what he or she is doing could save us a lot in the long run. I don't doubt they're doing a lot, but I have a hunch they could do a lot more—it would be interesting to find out," he said. "If universities aren't going to take leadership roles, I don't know who is going to do it in today's society."

While interested in hearing more, administration isn't committing to either of these measures at the moment. Julian Martin, chair of the long-range planning steering committee, has issued a first response on behalf of administration to the sustainable development lobby group. He emphasizes that the long-range plan now on the drawing board is partly driven by two general principles dictating adoption of best practices and sensitivity to the environment. Hopefully, he says, it will be the beginning of a fruitful consultation process, perhaps bringing on the culture change for which we are all responsible.

For now, however, the university's position seems clear: We're doing everything we can, but if you can think of ways to improve, bring it on.

"Any time a group like this says,
'Think about what you're doing, I think
that's good—I see it as a positive," says
Quinney. ■

» quick » facts

An average North American university will, in a year:

- Make 14 million photocopies
- Use 65 tons of paper towels
- Consume 110 million gallons of water
- Burn 1.1 million gallons of fuel
- Emit 22 million pounds of carbon monoxide
- Produce well over 2000 tons of solid waste

Further reading:

A list of useful Web resources on sustainable development:

Links to sustainable development Web sites:

http://www.unesco.org/iau/tfsd_acrony ms.html

UBC Campus sustainability office Web site:

http://www.sustain.ubc.ca/index.html

University of Calgary's Environmental Management Committee Web site: http://www.ucalgary.ca/UofC/departments/UEMC/

Association of University Leaders for a Sustainable Future: http://www.ulsf.org/programs_talloires_signatories.html

International Association of Universities – The Halifax Declaration: http://www.unesco.org/iau/tfsd_halifax.html

McGill University's environmental policy Web site: http://www.mcgill.ca/enviropolicy/

Second Nature: Education for Sustainability Web site: http://www.secondnature.org/

president

Sharing research success

University sparks social and economic success

By Dr. Rod Fraser

Continuing with our in-depth look at the University of Alberta's four primary Key Strategic Initiatives (KSIs), this month I will focus on the second KSI: Achieve national and international leadership in research.

The transfer, innovative application and commercialization of technology and knowledge developed at research-intensive universities are challenging and increasingly important contributors to economic and societal development. Success depends on multi-faceted processes and collaborative partnerships between universities, government, other public-sector organizations and industry.

The university established a multifaceted program in 1994 to accomplish research excellence that comprises:

- Periodic assessments of our research programs against national and international standards of excellence (the third assessment was completed in 2001);
- Setting a new target of attracting an additional \$1 billion by 2005 for increased research activity and funding, after reach-

ing our first target of \$1 billion a year ahead of schedule;

- Setting a new goal of being ranked among the top four universities receiving Tri-Council grants by 2005-06 (Natural Sciences and Engineering Research Council, Social Sciences and Humanities Research Council, and Canadian Institutes of Health Research) after reaching our first target of reaching the top five for all three councils in 1999;
- Facilitating new research initiatives and promoting collaborative and interdisciplinary research;
- Facilitating and promoting technology transfer through Networks of Centres of Excellence, funding councils, national and international partnerships;
- Celebrating our success of where we stand not only in Canada but also in North America and the in the world, and informing the greater community of the benefits of research activity. Delivering this message of the important link between teaching and research will continue to be a priority.

Our goal is to reconnect, reinvigorate and enhance our partnerships with public and private sectors, and the voluntary and non-profit sectors. Working together we can harness the intellectual capacity of the community through research partnerships. NSERC Industrial Chairs enable us to meet specific research needs of business. The University of Alberta has established seven new NSERC Industrial Chairs since 1996.

The Industry Liaison Office brings university professors and their discoveries together with the global community. A recent example is the Innovation and Commercialization of University Research (ICUR) Conference, an international effort hosted at the University of Alberta. The ICUR delegates explored and exchanged the best methods, policies and organizational structures for transferring technology and innovation from university research to commercialization and social applications, for the benefit of society.

The University of Alberta has been making such efforts for decades and has

made tremendous progress. Since 1963 there have been 67 spin-off companies formed from University of Alberta research. The university attracted more than \$255.5 million in external research funding in 2000-2001. In the same year, the university achieved 53 invention disclosures, 93 patents filed, 1,148 research agreements executed and earned licensing income valued at \$7.6 million.

The University of Alberta is firmly positioned to "achieve national and international leadership in research." Last summer's announcement that the National Research Council's National Institute for Nanotechnology will be housed on our campus is but one example. Other research projects include the Major Collaborative Research Initiative that is funding Dr. Andrzej Weber's Lake Baikal Archaeology Project with a \$2.3 million grant for five

In next month's article we will discuss the third KSI: Attract and retain outstanding faculty, researchers and staff. ■

Courting the private sector

Today's generation of researcher more adept at negotiating intellectual property

By Stephen Osadetz

The nature of university research is changing as the gap between academia and the private sector narrows, says Tom Brzustowski, president of the Natural Sciences and Engineering Research Council of Canada (NSERC).

Brzustowski spoke at the Innovation and Commercialization of University Research conference, a meeting of university leaders from around the world held at the University of Alberta's Telus Centre Feb. 7 - 9. The conference's aim was to discuss how to make research more available to the private sector, while keeping in mind the potential dangers of privatization.

According to Brzustowski, there's a new stress placed on professors: the need to become business-savvy, to know how to protect and claim ownership of their findings. "The increasing relationship between

academia and the private sector has made people conscious of the fact that protection of intellectual property is significant and has to be given attention. That idea is new for some people in universities, because typically their priority is discovery, not business."

Researchers' goals, says Brzustowski, have traditionally been to "be the first to discover, first to publish, and first to let the world know. Now, if you want to try to invent something, to create something for some goal, you have to understand there are implications of intellectual property."

However, Brzustowski sees the increased tie to industry as generally beneficial, bridging the gap between the ivory tower and the public utility of research. "I think the best, most active researchers have no trouble living in both worlds, doing basic research and claiming priority

of discovery, doing project research and recognizing that some things have to be protected."

He also thinks new researchers are more versatile, able to work comfortably in the university while also promoting their research effectively to industry. "The new generation of faculty has no trouble adapting."

There are problems, however, in tying research to industry. Basic theoretical research, research without immediately patentable findings, for instance, would naturally draw less industrial interest than project research with a defined industrial goal. That is why funding bodies like NSERC are so important, says Brzustowski.

"There has to be the freedom of choice for academics to choose what they want to research. ... NSERC puts most of its money into basic research. More than half of our budget goes towards Discovery Grants, for which the choice of research is up to the applicant."

There's also the risk businesses will recruit students whose training isn't finished, even as those same businesses need people with advanced degrees. To remedy this, Brzustowski thinks it is important for professors to get their students interested in university research.

On the whole, Brzustowski's ideas reflected those of many attendees at the conference. "I think we have to make the relationship between academia and the private sector grow," he said. "We also have to make sure this growth is done under appropriate rules, so the quality of science is never compromised and so there are no conflicts of interest or commitment."

The balancing act of commercializing research

U of A hosts international conference on transfer of knowledge

By Geoff McMaster and Ryan Smith

Taking university research to market is a double-edged sword, because it isn't always in the best interests of a university, says the former dean of research at the Massachusetts Institute of Technology (MIT).

"You have to be absolutely clear about your policies and principles," Dr. David Litster said during the Innovation and Commercialization of University Research (ICUR) Conference. "We have to remember that the primary goal of a university is the discovery of new knowledge and the education of students. Patents are just a byproduct of that."

He said universities should be wary of getting too greedy in pursuit of patents, as the ultimate purpose of licensing is to make research results available to society at large, not to make money. He stressed that it is MIT's policy to turn down any agreement with the private sector that might interfere with the integrity of research or with aca-

demic freedom, and that the needs of industry and universities must be carefully balanced in any agreement.

Litster made his comments at a conference session addressing university and government policy. The Feb. 7 - 9 gathering at the University of Alberta Telus Centre was the first of its kind anywhere, hosting 160 delegates. Participants included presidents, chancellors and directors of universities in Europe, Asia (the Middle and the Far East), Australia and North America. Top officials from all levels of government in Canada, as well as the presidents of the Canada Foundation for Innovation, the Natural Sciences and Engineering Research Council of Canada and the National Research Council (NSERC).

Organized by the U of A Industry Liaison Office (ILO) and the International Association of University Presidents (IAUP), the conference was staged to help find ways to create links among universities, industry and government to commercialize research while addressing issues of funding and conflict of interest.

"Regions around the world have made social advancements through their proficiency at transferring new technology and innovation from universities into the private sector," said Sven Caspersen, IAUP president and rector of Aalborg University in Denmark. "There is no singular model for successful technology transfer."

It's a topic of top concern these days given Canada's goal to become, by 2010, one of the top five countries in the world in per-capita funding of research and development investment (from its current position of 15th).

Dr. Robert Lacroix, board chair of the Association of Universities and Colleges of Canada, pointed out that Canadian universities contribute significantly to the transfer of knowledge in the country, accounting for 21 per cent of all research and development activity and 31 per cent of all research and development jobs.

In 2000, he said, Canadian universities produced 2.5 times more spinoff companies per dollar of research investment than their U.S. counterparts, and disclosed just as many inventions per research dollar. He added that Canada could triple its commercialization results by 2010 if properly supported by the government and private sector: "We can only hold on to the best researchers if we create an internationally competitive research environment."

But while it may be important to increase the transfer of technology to the commercial sector, MIT's Litster added a cautionary note. "Remember, what comes out of our graduates (in terms of their potential to impact the economy through the creation of companies) is about 100 times greater" than the impact of an institution as active commercially as MIT.



Saving for a rainy day

Mazankowski Report suggests savings scheme that would violate the Canada Health Act

By Dr. Donna Wilson

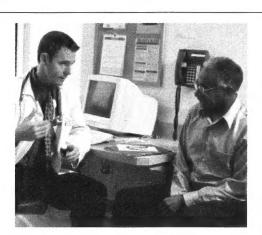
The Alberta government is the first government in Canada to consider Medical Savings Accounts (MSA). A careful study of potential implications is needed before any new ways of funding, delivering, or administering health care are implemented. In this way, viable solutions can be chosen over those with less certain or negative outcomes.

A recent search of 15 health and social sciences library databases revealed 120 published articles on MSAs. Most of these are opinion pieces, written by American authors expressing concerns about their own health care system. In fact, the first article about MSAs, published in 1991, was written by a U.S. group, Physicians Who Care (Bronow et al., 1991). This group supported MSAs as a way of extending health care coverage to all Americans. One-third of employed Americans have no health care coverage (Committee on the Consequences of Uninsurance, 2001). Two articles describe research studies, both simple surveys of U.S. businesses. In the U.S., employers are responsible for providing health care coverage for their employees. A few articles are in-depth descriptions or discussions of existing MSA programs. Only two countries have implemented MSAs (Singapore and South Africa), and two more have pilot tested them (China and the U.S.).

What are Medical Savings Accounts (MSAs)?

Three different types of MSAs are apparent. The recent Premier's Advisory Committee report focuses on one type, however:

1. A bank account program. In this program, each person is expected to bank funds and then pay directly for health care. For instance, employed persons in Singapore are required to pay up to 10 per



Making decisions on proper medical treatments could be taken out of the hands of health care professionals if schemes such as medical savings accounts go ahead.

cent of their monthly income into a Medisave health fund (the exact amount depends on their age, gender, and other variables). Although the Singapore program was designed to extend health care access to the poor and uninsured, a number of problems are evident. One of the most serious is that the funds accumulated are not enough to pay for hospitalizations or extensive outpatient diagnostic tests and treatments. Private health care insurance or charity care is needed, although some people still go without health care. People also seek charity care to avoid using up their MSA funds. Cost shifting is thus an issue, with the cost of charity care shifted to governments and paying customers.

The Premier's Advisory Council report indicates our health care premium could be used as a personal MSA, citing an advantage of Albertans being personally responsible for "how they use the health care system and how much they spend". At our current premium rates, \$408 per year would be banked each year for health care. Yet Alberta Health and Wellness fig-

ures indicate \$356 per year is the average annual cost per Albertan for physician services alone, so few Albertans would accumulate MSA funds. At a cost of \$10,000 for a knee or hip replacement, \$20,000 for artery bypass heart surgery, and \$535 for an MRI, it is also easy to see that anyone with a chronic illness, pregnancy, injury, or serious acute illness would overspend a fund built up over a lifetime. The Premier's Advisory Council recognized this issue; it indicated individuals may pay out of pocket after their MSA fund is depleted.

2. A fund for purchasing private health care insurance. This type of program has been discussed in the U.S. as a way of replacing the Medicare program for seniors. Seniors would either be provided with funds, or would be required to save funds prior to retirement so they could purchase private health care insurance after they retire. Yet, private insurance is costly, copayments are expensive, and private insurance companies do not want to provide insurance to all people, particularly seniors. It is interesting to note, however, that proponents of this program indicate seniors would still have a choice, in that they could pay for extensive private insurance coverage, limited coverage, narrow coverage (i.e. for cancer only), or no coverage.

Discussions arising out of the Premier's Advisory Council report also focus on the use of MSA funds for non-health care expenses, such as vacations. Yet, MSA funds would more likely be used to pay for private health care insurance to cover hospitalizations, medications, diagnostic tests, long-term care, or home care in a trimmed-down health care system.

An RRSP-like program. This taxdeferral program is based on individuals and/or their employers paying into a plan to accumulate health care funds. Yet, reduced tax revenue is a concern for governments (i.e. the South African government). However, only the rich and upper-middle income earners are able to pay into this type of program. Even if funds are accumulated, this program still does not ensure enough funds are available for a serious illness, so private health care insurance is again needed. Given the federal income tax implications of this type of plan, it is not surprising that the Premier's Advisory Council did not mention this type of program.

Although the three types of MSA programs differ to some degree, they are all similar in that personal access to health care is limited and private health care insurance is needed. In short, MSAs are not compatible with the Canada Health Act principle of accessibility. Accessibility prevents private fees from precluding universal access to health care. MSAs would also indicate a radical shift from universality, another Canada Health Act principle. The principle of universality illustrates the value that Canadians place on equity of access to health care.

If a provincial MSA program were initiated, Albertans would be required to make the choice of seeking health care or not, while knowing the risk of depleted MSA funds. Individual Albertans would also be accountable for determining if they needed extensive, limited, or no treatment. This is not a comfortable position to be in when ill. Amazingly, the Premier's Advisory Council indicated Albertans would be advantaged by being able to "shop around to see where they could get the best price (for health care)."

(Dr. Donna Wilson is an associate professor in the Faculty of Nursing. Her research focuses on end-of-life care, and health policy and decision-making.) ■

Blackfoot Barrel Racing Barbie carries a message

The popular doll furthers stereotypes, prof says

By Simon Kiss

Mattel Barbie dolls are a pop-cultural phenomenon that has influenced generations of young girls the world over—but that influence has not come without a fair share of controversy.

Critics of the dolls have long argued that Barbie causes girls to develop unrealistic and unhealthy body images.

But a University of Alberta professor is focusing on another aspect of Barbie's social impact that she feels deserves attention. According to Native Studies professor Dr. Pat McCormack, the limited line of Native Barbies produced reflect and reinforce traditional stereotypes about the lives of Native women.

"'Mainstream' Barbies include a wide range of models. These Barbies can be almost anything. They reflect the range of possibilities for middle-class, affluent North American women. But the Native American Barbies line presents a classic 'Pocahontas' image. Nothing else," McCormack said.

McCormack made her argument recently during a lecture at the U of A entitled Deconstructing Barbie.

In the spirit of constructive criticism, McCormack devised a doll that would more accurately reflect the lives of Native



Dr. Pat McCormack's Blackfoot Barrel Racing Barbie doll draws on real life experiences of contemporary native women, rather than pop-culture myths.

women. The result? "Blackfoot Barrel Racing Barbie," laughs McCormack. "It's a bit of a quirky way to demonstrate a serious point."

'Blackfoot Barrel Racing Barbie' is

decked out in blue jeans, cowboy boots and denim shirt, looking every bit the part of a modern, rural, Blackfoot woman. "Doing this jogs peoples' minds," said McCormack. "It reminds them that Native women right now across North America are involved in every profession under the sun."

McCormack also argues that this phenomenon has real impact on things such as museum collection strategies.

"Museums across Canada have historically collected items that reflect the kinds of stereotypes represented by Native American Barbies. They should be collecting items that reflect the daily lives of modern Native peoples," McCormack added.

Susan Berry, Curator of Ethnology at the Provincial Museum of Alberta, said that evolution is already happening. "We're committed to collecting a broad range of materials that reflect the diverse and complex realities of aboriginal lives," she said.

As examples of Native materials recently collected, Berrie cited an antiquated and well-used frying pan from an Alexis woman who had worked in a lumber camp and a 'Harold Cardinal' election

campaign sign from the 2000 federal election. But old stereotypes die reluctantly, Berry said.

"You do have to work extra hard and keep your eyes alert and open for these kinds of items," she said. "There will always be a preponderance of older material that people will hold onto and donate because that's what they view as important. That will be with us for many years."



Folio welcomes letters to the editor. Send your thoughts and opinions via e-mail to richard.cairney@ualberta.ca, fax at 492-2997, or by mail to Folio, Office of Public Affairs, 6th floor General Services Building, Edmonton, Alberta T6G 2H1. Letters may be edited for grammar, style, accuracy and length.

Paul Lorieau's University Optical



We've moved!

to the Avenue side of College Plaza

complete eye glasses package upon presentation of this coupon

4 3 3 - 5 5 0 0

11170 - 82 Ave Edmonton AB T6G 2L8

Grandin Green APARTMENT FOR RENT

Located at 9708-110 Street, this one bedroom suite is available for rent from April 15th 2002 to March 31st 2003. Five



appliances and one underground parking stall are included. Rent \$1,125.00 per month. Ideal location for visiting or term academic staff. Non smokers and pets permitted (subject to approval). For more information or an appointment to view please call 482-5467.

Active Chiropractic

Multi-disciplinary Health Clinic

The most advanced pain relief solutions are closer and cheaper than you think.

Chiropractic - skeletal adjustments to minimize pain and optimize biomechanics Active Release Technique - newest treatment for soft-tissue injuries Muscle Therapy - deep muscle treatment to increase flexibility and decrease pain

ALL MUSCLE THERAPY SESSIONS COVERED BY YOUR U of A HEALTH PLAN

Chiropractic and ART treatments partially covered by AHC

Free and convenient parking

THINKING OF RETIRING?

The Office of the Provost and Vice-President (Academic) and Human Resources are sponsoring a pre-retirement seminar for University of Alberta Academic Staff:



Planning for Personal Freedom

April 5 & 6, 2002

April 19 & 20, 2002

This is a two-day seminar and provides participants with the opportunity to:

- · Discuss specific information in the areas of lifestyle, financial and estate planning
- · Develop long-term goals and a strategy for retirement planning

To register or get more information, please contact:

Christine LeLacheur Staff Learning and Development Phone: 492-7126

E-mail: christine.lelacheur@hrs.ualberta.ca

Space is limited. Deadline for registration: March 8, 2002.



Looking for structure in a black hole

Physicist gains insight by examining effect on stars

By Steve Osadetz



Galaxy M81, a neighbour of our own Milky Way, was one of the first galaxies to have a massive black hole identified in its centre. Dr. Valeri Frolov is trying to determine the structure of a black hole. This true-colour photograph was taken at the U of A's Devon Astronomical Observatory in March last year.

ccording to the laws of physics, it is Aimpossible to see into black holes, but Dr. Valeri Frolov can.

Frolov, a University of Alberta professor of physics and Killam Memorial Professor of Science, has devoted his life to imagining what a black hole "looks" like, what its structure is.

Because of its enormous gravitational pull, no light, no information whatsoever, can escape from a black hole. In Frolov's words, "a black hole is nothing. It is a hole in space" Despite scientists' inability to study black holes directly, they can still create models of holes by looking at how other objects, stars for example, are affected by gravity.

Though his published work is more technical, in conversation Frolov paints a dramatic picture of a black hole. "If hell exists, a black hole would be a good place for it," he says.

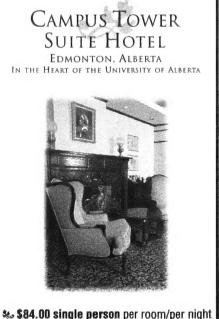
In the popular imagination, black holes have come to pervade our understanding of astrophysics, because of both their enigmatic nature and fantastic name. The term "black hole" was coined in 1968 by astrophysicist John Wheeler when Frolov was still a student at Moscow State University. Drawn into the field by his desire to work with the effects of strong gravity, Frolov quickly became a star in his area of research. In 1993, he moved to Edmonton to accept a prestigious Killam Memorial professorship.

More recently, Frolov co-authored a book with Igor Novikov, director of the Theoretical Astrophysics Centre in Copenhagen. A synthesis of his knowledge on the subject, the book, simply entitled Black Hole Physics, has been called one of the most comprehensive books on black holes in the world. While hardly aimed at a popular audience, its wide-ranging discussion of black hole theory is its strength. Frolov says he wrote the book for himself, so his knowledge would be more accessible: "For me, writing the book was like being pregnant."

As his research focus is on theoretical vsics. Frolov feels no need to justify the study of something that has no practical application. "It's limiting to think we can only study something that has immediate value," he says. Instead, Frolov finds a different, much more profound value within his work. The study of black holes does more than simply seek to explain aspects of the universe-it also challenges peoples' understanding of what it means to exist.

"This becomes a philosophical problem," Frolov says. "How do we live our lives, understand our universe, when (black holes) are challenging everything we know?'

Stephen Osadetz is a third-year arts student and part-time science writer for Folio and ExpressNews. His writing position is funded by the Natural Sciences and Engineering Research Council and is part of a program called SPARK, which aims to involve students in the dissemination of research. To suggest story ideas, write Stephen at sosadetz@ualberta.ca .



Executive Suites from \$129 single

11145 - 87 Avenue, Edmonton, Alberta Tel: 780.439.6060 Fax 780.433.4410 Toll Free: 1.800.661.6562

E-mail: info@campustower.com www.campustower.com

> MACLAB 1.800.717.1277

Canadian Studies a hot topic at FSJ

Lecture series continues Feb. 28 with Governor General's Award winner

By Geoff McMaster

Dr. Claude Couture has a message he'd like to spread far and wide: Canadian studies are alive and well at the University of Alberta.

"Canadian studies are extremely healthy, and very visible, these days-far from being dead," said the director of Faculté Saint-Jean's Centre for Canadian Studies. While the arts faculty has been forced to close its program in Canadian

studies, for mainly financial reasons, Faculté has continued to forge ahead with a flurry of activity in publishing, a distinguished speaker series and plans for a major international conference this summer.

And that's not to mention Faculte's new master's program, which will kick off in the fall of 2003, or the fact Couture has been named associate editor of the Ottawa-based International Journal of Canadian Studies, regarded as the most prestigious journal in Canadian Studies and one of the top three journals in social sciences in Canada.

Faculté's Connecting Canadians Lecture Series has been "a great success so far," said Couture, with the addresses drawing about 700 people for author and philosopher John Ralston Saul, and about 500 for Bombardier CEO Laurent Beaudoin, both last fall. Another 250 people are expected to turn out for the March 1 lecture by prominent social historian Gérard Bouchard of the University of Quebec at Chicoutimi.

"We're talking roughly 1,500 people who have attended something in Canadian



studies this (academic) year, and that's not a bad figure," said Couture.

Bouchard's talk Feb. 28 will focus on national identities in Canada, Quebec and Australia. It will be based on his latest book, Genèse des nations et cultures du Nouveau Monde, which won the Governor General's Award for non-fiction in 2001. Over his distinguished career

Bouchard has authored or co-authored 23 books and written more than 200 journal articles. "It's an amazing career," said Couture. "He's very well known in Canada, especially Quebec, and in Europe."

In order to foster a more inclusive atmosphere, there will also be seminar March 1 in English led by Bouchard entitled National Identities in the New World. Both take place at Faculté Saint-Jean.

After the final talk in this year's series, it will be time to gear up for their international Canadian studies conference this summer, running Aug. 25-30. The Faculté won a sizable grant for the conference from the Department of External Affairs and International Trade, winning out over other leading universities such as the University of Toronto and UBC.

Organized in conjunction with the University of Calgary, the U of A's Faculty of Arts and the School of Native Studies, the conference is expected to attract between 30-40 delegates, many of them directors of Canadian studies programs from around the world.

THE FACULTY OF LAW INVITES YOU TO A FREE PUBLIC LECTURE

THURSDAY, FEBRUARY 28, 2002, 12noon-12:50pm 237 Law Centre

> CIVIL LIBERTIES BEFORE AND AFTER SEPTEMBER 11

presented by A. Alan Borovoy **General Counsel, Canadian Civil Liberties Association**

RSVP, if attending: 492-5590, email: sparr@law.ualberta.ca

EVERYONE WELCOME!

Employee & Family Assistance Program

Confidential Counseling Services for staff and their eligible dependents

Family & Parenting Issues Stress, Anger & Depression Retirement Adjustment

Communication Grief & Loss Self-Esteem Issues Career Planning Conflict & Mediation Supervisory Coaching

http://www.hrs.ualberta.ca/efap

492-8444 Self-help information line

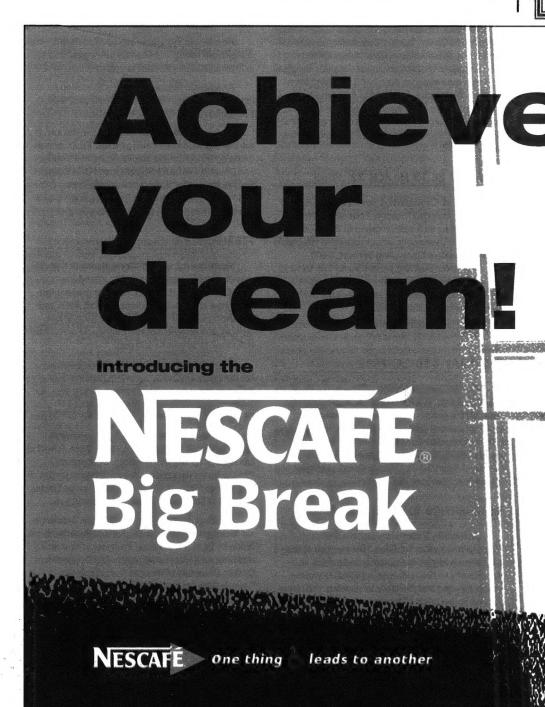
2002 Preferred Providers Wilson Banwell & Associates

Lynda J. Phillips

428-7587 428-7587 488-7649 461-1717

Lousage Institute Insight Psychological & Family Support Services H.I. McLeod & Associates 447-2614 Cornerstone Counselling Centre 482-6215 Centre for Cognitive Behavioral Therapy 455-8133







Are you 18-24 years old and a Canadian resident?

Tell us your idea and you could receive up to

cash to make it a reality!

or one of ten \$1,000 secondary prizes available as well

For contest details and to receive an Entry Kit www.nescate.ca

You can enter as an individual or as a group. Entries are selected by a panel of judges and prizes will be awarded in November/December 2002

John Dossetor Health Ethics Centre

What is health ethics?

A poster display of research projects by faculty members of the Dossetor Centre explores a variety of health ethics questions and issues.

4 - 8 March 2002

John W Scott Health Sciences Library

For more information on Bioethics Week events visit www.ualberta.ca/BIOETHICS

THE RIGHT HONOURABLE BEVERLEY McLachlin

CHIEF JUSTICE OF CANADA

PUTTING IT ALL IN CONTEXT - Judicial Reasoning in a COMPLEX WORLD

2002 HENRY MARSHALL TORY LECTURE SERIES

Monday March 4th

7:30 PM MYER HOROWITZ THEATRE 2ND FLOOR STUDENTS UNION BUILDING 8900-114 STREET

FREE ADMISSION



riends of the University of Alberta

FOR MORE INFORMATION: WWW.UALBERTA.CA

Priority One Human Resources Inc.

Psychological Counselling and Assessments

We have served University of Alberta clientele since 1989. Your feedback to us indicates satisfaction with our professional and confidential services. You have told us that our counselling has enabled you to meet your challenges at home and in the workplace. The services have helped you remain positive and productive.

We continue to welcome all current and new clients. For an appointment or information call:

> (780) 433-6811 1-800-661-7052 Conveniently Located 8625 - 112 Street

Campus Tower Visit us at:

www.priorityonehr.com

"People Helping People"





talks & events

Submit talks and events to Cora Doucette by 9 a.m. one week prior to publication. Fax 492-2997 or e-mail at cora.doucette@ualberta.ca.

EVERY THURSDAY UNTIL APRIL, 2002

The Campus Observatory, roof and 7th floor of the Physics Building, is open for the 2001-2002 academic year. Open to everyone on Thursday evenings (except exam and holiday periods) beginning at 8:00 p.m. Special nighttime or daytime group visits can be arranged for other days and times. The Observatory will be open regardless of weather conditions. On cloudy nights a slide show can be substituted for telescopic observing. Reservations not required. For additional information, please contact Adam Pigeon, S.P.A.C.E. (Students Promoting Astronomy Culture and Education) - new club formed by the undergraduate student volunteers, apigeon@ualberta.ca, or Doug Hube, 492-5410, or Sharon Morsink, 492-3987.

THURSDAY EVENINGS UNTIL APRIL, 2002

Spanish Language Cafes. Parkallen Pizza, 8424 - 109 Street (not the original Parkallen restaurant, but their new pizzeria branch). Who's invited? Students at all levels, from beginner to advanced. Casual and practical conversation in an informal atmosphere. 7:00 p.m.

FROM NOW THROUGH TO MARCH 1, 2002

Bruce Peel Special Collections Library. "James Joyce & Virginia Woolf: An Exhibition honouring the 60th anniversary of their deaths." Lower level, Rutherford South, 8:30 to 4:30, Monday to Friday, closed weekends. For more information, please phone

JANUARY 22 TO MARCH 26, 2002

Student Counselling Services. "Developing Relaxation Strategies." Student Counselling Services offers an 8-session group to those who are interested in developing various relaxation techniques. Location: Student Counselling Services, 2-600 Students' Union Building, Tuesdays from 11:00 to 11:50 a.m. Please note: Participants must register in advance and meet with the facilitator prior to the start of the group. Visit Web site at www.ualberta.ca/~uscs for more information, or call 492-5205.

JANUARY 23 TO MARCH 20, 2002

Student Counselling Services. "Social Anxiety and Shyness Group." Student Counselling Services will be offering an 8-session group to those individuals who struggle with social anxiety and shyness. Location: Student Counselling Services, 2-600 Students' Union Building. Wednesdays from 2:00 to 4:00 p.m. Please note: Participants must register in advance and meet with the facilitator prior to the start of the group. Visit Web site at www.ualberta.ca/~uscs for more information, or call 492-5205.

JANUARY 25 TO MARCH 22, 2002

Student Counselling Services."Developing Relaxation Strategies." Student Counselling Services will be offering an 8-session group to those who are interested in developing various relaxation strategies. Location: Student Counselling Services, 2-600 Students' Union Building. Fridays from 10:00 to 10:50 a.m. Please note: Participants must register in advance and meet with the facilitator prior to the start of the group. Visit Web site at www.ualberta.ca/~uscs for more information, or call

FEBRUARY 5 TO 24, 2002

FAB Gallery. Exhibition of fifteen contemporary Mexican artists. "Gráfica actual" was made possible through the generous assistance of the Mexican Office of Cultural Affairs, Ministry of Foreign Affairs and the Consulate General of Mexico in Vancouver. Gallery Hours: Tuesday to Friday, 10 a.m. to 5 p.m, Sunday 2-5 p.m. 1-1 Fine Arts Building, 112 Street and 89 Avenue. Telephone 492-2081.

FEBRUARY 20 TO MARCH 26, 2002

University Extension Centre Gallery. "Alberta Watercolour Tradition." The purpose of this exhibition is to give our students and publics an opportunity to view a diverse approach to watercolour painting and therefore to stimulate their interest and appreciation of this versatile medium. Second floor, University Extension Centre, 8303 - 112 Street. Gallery hours are from 8:30 a.m. to 8:00 p.m. Monday to Thursday, 8:30 a.m. to 4:30 p.m. Friday, and 9:00 a.m. to 12:00 noon Saturday. For further information, please call 492-3034.

FEBRUARY 22

Department of Physiology. Dr. Andrew

Shaw, Oncology, U of A, speaking on "How tetraspanins modulate cellular adhesion in response to mechanical stress: a role for lipid rafts." 207 Heritage Medical Research Centre. 3:00 p.m.

FEBRUARY 25

Department of Music. Noon-Hour Organ Recital with guest Gary Tong, organ student, University of Calgary. The recital presents a variety of organ repertoire played by students, faculty and guests of the University of Alberta Department of Music, Free admission, Convocation Hall, Arts Building, All concerts and events are subject to change without notice. Please call 492-0601 to confirm concert information, 12:00 p.m.

Prairie Centre of Excellence for Research on Immigration and Integration. Public presentation by Dr. M.A.B. Siddique, Professor of Economics and Director, Centre for Migration and Development Studies, University of Western Australia. Topic: "International Migration into the 21st Century: An Overview of Selected Issues." Room 10-4 Tory Building (Political Science). 3:00 to 4:30 p.m.

Department of English. The Broadus Lectures Queer Constellations. Presented by Professor Dianne Chisholm. Topic: "Fictions of Space in the Wake of the City." Humanities Centre, L-1. 3:30 p.m.

University Teaching Services. Denise Koufogiannakis and Tami Oliphant, Libraries, present "Cyber-Plagiarism: Plagiarism in a Digital World." Central Academic Building, room 265. From 3:00 to 4:30 p.m.

FEBRUARY 26

Institute for Professional Development, Faculty of Extension. "Beyond Learning Technologies: An Online Symposium." The first synchronous session was held February 12, followed by synchronous and asynchronous discussion terminating either February 26 or March 6, depending on participant feedback. A new topic will be presented and discussed each week. The event is free, but pre-registration is required. For more information or to register, please e-mail lisa.watson@ualberta.ca

Academic Support Centre. Workshop for students. "Time Management and Reading Strategies." 1:00 to 2:30 p.m. \$20. Call 492-2682 to register.

Academic Support Centre. Workshop for students. "Note Taking and Memory Strategies." 2:30 to 4:00 p.m. \$20. Call 492-2682 to register.

Academic Support Centre. Workshop for students. "Note Taking and Memory Strategies." 4:00 to 5:30 p.m. \$20. Call 492-2682 to register.

Prairie Centre of Excellence for Research on Immigration and Integration. Public presentation by Dr. M.A.B. Siddique, Professor of Economics and Director, Centre for Migration and Development Studies, University of Western Australia. Topic: "Trade and Economic Development." Tory Building Breezeway Room T BW-2. 3:30 p.m. to 5:00 p.m.

FEBRUARY 27

Staff Learning and Development. If you're new on campus, you are invited to attend the Orientation to the University, Half-day session introduces new staff (including Support Staff, APOs, and Academics/Faculty) to the University, its structure, services, and benefits. Location: Banquet Room, Lister Hall. From 11:30 a.m. to 4:30 p.m.

Department of Public Health Sciences. Epidemiology: Dr. Duncan Saunders, Professor: "The CHORUS Line: Collaborative Research Studies to Support Evidence-Based Decisions." Room 2-117, Clinical Sciences Building. From 12:00 noon to 1:00 p.m.

International Institute for Qualitative Methodology. Lisa Given and Hope Olson, School of Library and Information Studies, U of A, present "Strategies for data coding: A knowledge organization perspective." Room 6-10 University Extension Centre, 8303 - 112 Street, From 12:00 noon to 1:00 p.m.

Prairie Centre of Excellence for Research on Immigration and Integration. Public presentation by Dr. M.A.B. Siddique, Professor of Economics and Director, Centre for Migration and Development Studies, University of Western Australia. Topic: "Immigration Issues in Australia: Focus on Refugee and Humanitarian Programs." Room 5-15 Tory Building (Sociology). 12:00 noon to 1:00 p.m.

John Dossetor Health Ethics Centre. Videoconference hosted by the Disability and Ethics Initiative at the University of Alberta. Title: "Disability and the Allocation of Health Care Resources: The Case of Connor Auton." Seminar led by Peter Carver, BA, MA, LLB, LLM. Seminar discussion will be based on an article in Health Ethics Today, 12, (1) Fall 2001. All participants are expected to have read the articles avail-

able at www.ualberta.ca/bioethics. To register please email bronwen.jack@ualberta.ca or call 492-5745. Location: Joseph Dvorkin Video Conference Centre. From 12:00 noon to 1:30 p.m.

Academic Support Centre. Workshop for students, "Time Management and Reading Strategies." 2:30 to 4:00 p.m. \$20. Call 492-2682 to register.

Department of English. The Broadus Lectures Queer Constellations. Presented by Professor Dianne Chisholm. Topic: "Love at First Sight' or the Dialectics of Seeing in the Wake of the Gay Bathhouse." Humanities Centre, L-1. 3:30 p.m.

Academic Support Centre. Workshop for students. "Note Taking and Memory Strategies." 4:00 to 5:30 p.m. \$20. Call 492-2682 to register.

Sigma Xi Lecture. Wayne Grover, Electrical and Computer Engineering, U of A, speaking on "Selforganizing broadband transport networks: approaches for efficient real-time failure recovery and adaptation to unpredictable demand patterns in backbone fibre-optic networks." Sponsored by U of A chapter of Sigma Xi. Athabasca Computing Science annex 3-33. Reception at 6:30 p.m., talk is at 7:00 p.m.

FEBRUARY 28

Academic Technologies for Learning. Workshop "Connecting Learning and Interaction." ATL Studio, 2-111 Education North. From 9:30 a.m. to 11:00 a.m. to register, go to ATL Web site, www.atl.ualberta.ca and see workshops and events listings.

Lunch and Learn Presentation. "Getting UnStuck: A Practical Approach to Change." Part 2. Presenter: Murray Armstrong, Lousage Institute. Presented by the Health Recovery Support Unit. Location: Heritage Lounge, Athabasca Hall. From 12:00 p.m. to 1:00 p.m. Cost: Free! Snacks and beverages provided. To register or for more information contact Sarah Treby at 492-0659 or email: sarah.treby@hrs.ualberta.ca or visit Web site www.hrs.ualberta.ca/efap/news for an updated list of all workshops and other offerings.

Department of Renewable Resources. Landscape Ecology Seminar Series. Dr. Simon Landhausser, Research Assistant Professor, U of A, speaking on: "When trees get cold feet: A different perspective on Boreal forest succession," Wyatt Lecture Room (236 Earth Sciences Building). 12:30 to

Faculty of Law. Free public lecture. Alan Borovoy, General Counsel, Canadian Civil Liberties Association, presents: "Civil Liberties before and after September 11." Room 237 Law Centre. From 1:00 to 1:50 p.m. RSVP if attending to 492-5590, or email: sparr@law.ualberta.ca. Everyone welcome,

Department of English. Reading by Ken Howe. Humanities Centre, 4-29. 2:00 p.m.

Institute for Geophysical Research. Seminar presented by Margaret Kivelson, Professor of Space Physics, UCLA. Title: "Seeing More than the Surfaces of the Galilean Moons of Jupiter with a Magnetometer." Room P631 Physics Building. 3:00 p.m.

Department of History and Classics. Sean Gouglas, U of A, "Uncharted Territory: Using Geographical Information Systems (GIS) Mapping to Aid Historical Inquiry." Room 2-58 Tory Building. 3:30 p.m.

R.U. Lemieux Lecture on Biotechnology. Dr. Roger Perlmutter, Executive Vice President, Research and Development, Amgen Inc., Thousand Oaks, California. Title: "The Development of Novel Therapeutics for Inflammatory Diseases – A Personal Odyssey." Timms Centre for the Arts. 4:00 to 5:00 p.m.

Environmental Research and Studies Centre. Dr. Peter Murphy, Professor Emeritus, U of A, presents: "Forests, Fire and People - A History of the Boreal Forest." Alumni Room, Students' Union Building. 4:30 p.m.

Career and Placement Services (CaPS). Workshop "The Summer Work Search." Workshop fees range from just \$10 to \$20. Pre-register at CaPS, 2-100 Students' Union Building. For a complete list of upcoming events, check out Web site at www.ualberta.ca/caps. Room 2-100, Students' Union Building. From 5:00 p.m. to 6:30 p.m.

Faculté Saint-Jean. Third conference of the Louis Desrochers Lecture Series in Canadian Studies/Études canadiennes. Title: "National Identities in the New World." Presented by Professor Gerard Bouchard. Auditorium of Faculté Saint-Jean. From 7:30 p.m. to 9:00 p.m. For free tickets or for more information, please contact Mona Liles at 465-8763 or by email mona.liles@ualberta.ca.

MARCH 1 AND 2, 2002

Faculty of Arts. Faculty, students and members of the public are invited to a symposium co-sponsored by the Faculty of Arts and the Canadian Centre for Austrian and Central European Studies. "Re-Imagining the European Union: Dynamics of Enlargement in the 21st Century."This interdisciplinary conference will focus on the cultural and social issues arising from the enlargement of the European Union to central Europe. Held at the Faculty Club. Pre-register by calling 492-9408. From 9:00 a.m. to 5:00 p.m.

MARCH 1

Educational Policy Studies, Faculty of Education. 2002 Visiting Scholar Series. Professor Kari Dehli, PhD, Department of Sociology and Equity Studies in Education, OISE/University of Toronto, will present "You can't improve what you're not measuring: Neo-liberal government for self, home and school." 7-152 Education North. From 10:00 to 11:30 a.m.

Department of Biological Sciences. Ecology Seminar Series (part of the biology 631 Seminar Series). Hank Harlow, Department of Zoology and Physiology, Director, UW-NPS Research Station, University of Wyoming, "Muscle protein and strength retention in overwintering black bears." BS M-149, Biological Sciences Building. 12:00 noon.

Career and Placement Services (CaPS). Workshop "Writing an Effective Vitae and Cover Letter." New for graduate students. Workshop fees range from just \$10 to \$20. Pre-register at CaPS, 2-100 Students' Union Building. For a complete list of upcoming events, check out Web site at www.ualberta.ca/caps. 4-02 Students' Union Building. From 12:00 noon to 1:00 p.m.

Earth and Atmospheric Sciences. Atlas Seminar. Dr. Hans Machel from the Department of Earth and Atmospheric Sciences will present "The Geology of Barbados." Room 3-36 Tory Building. From 3:00 to 4:00 p.m.

Institute for Geophysical Research and the Department of Physics. Joint Colloquium. Professor Margaret Kivelson, Space Physics, University of California Los Angeles speaking on "Contrasts of Magnetospheric Dynamics at Jupiter and Earth." Room P-126 Physics Building. 3:00 p.m.

Genetics 605 Seminar Series. Molecular Biology and Genetics Research Group. Dr. Roseline Godbout, Department of Oncology, Cross Cancer Institute, will speak on "DEAD box proteins, nuclear bodies and retinablastoma." M-149 Biological Sciences Building. 4:00 p.m.

Department of English. The Broadus Lectures Queer Constellations. Presented by Professor Dianne Chisholm. Topic: "The Lesbian Boheme." Humanities Centre, L-1. 3:30 p.m.

MARCH 2

Career and Placement Services (CaPS).

Workshop "The Work Search for Education Students." Workshop fees range from just \$10 to \$20. Pre-register at CaPS, 2-100 Students' Union Building. For a complete list of upcoming events, check out Web site at www.ualberta.ca/caps. 4-02 Students' Union Building. From 10:00 a.m. to 11:30 a.m.

Career and Placement Services (CaPS). Pharmacy Career Fair. Co-hosted with the Alberta Pharmacy Students' Association. Admission is free; major networking and recruiting event. For a complete list of upcoming events, check out Web site at www.ualberta.ca/caps. Dinwoodie Lounge, 2-000 Students' Union Building. From 10:00 a.m. to 4:00 p.m.

Academic Support Centre. Workshop for students. "Study Strategies & Exam Preparation." 10:00 a.m. to 3:30 p.m. \$50. Call to register: 492-2682.

Career and Placement Services (CaPS). Workshop "Resume and Cover Letter Writing for Education Students." Workshop fees range from just \$10 to \$20. Pre-register at CaPS, 2-100 Students' Union Building. For a complete list of upcoming events, check out Web site at www.ualberta.ca/caps. 4-02 Students' Union Building. From noon to 3:00 p.m.

MARCH 4

University Teaching Services. John Hoddinott, Biological Sciences, presents "Concept Mapping to Improve Communication." Room 281 Central Academic Building. 3:00 to 4:30 p.m.

Henry Marshall Tory Lecture. The Right Honourable Beverley McLachlin, Chief Justice of Canada, will present the distinguished Henry Marshall Tory Lecture, Horowitz Theatre, Students' Union Building. "Putting it All in Context - Judicial Reasoning in a Complex World." Free admission. Everyone welcome. /:30 p.m.

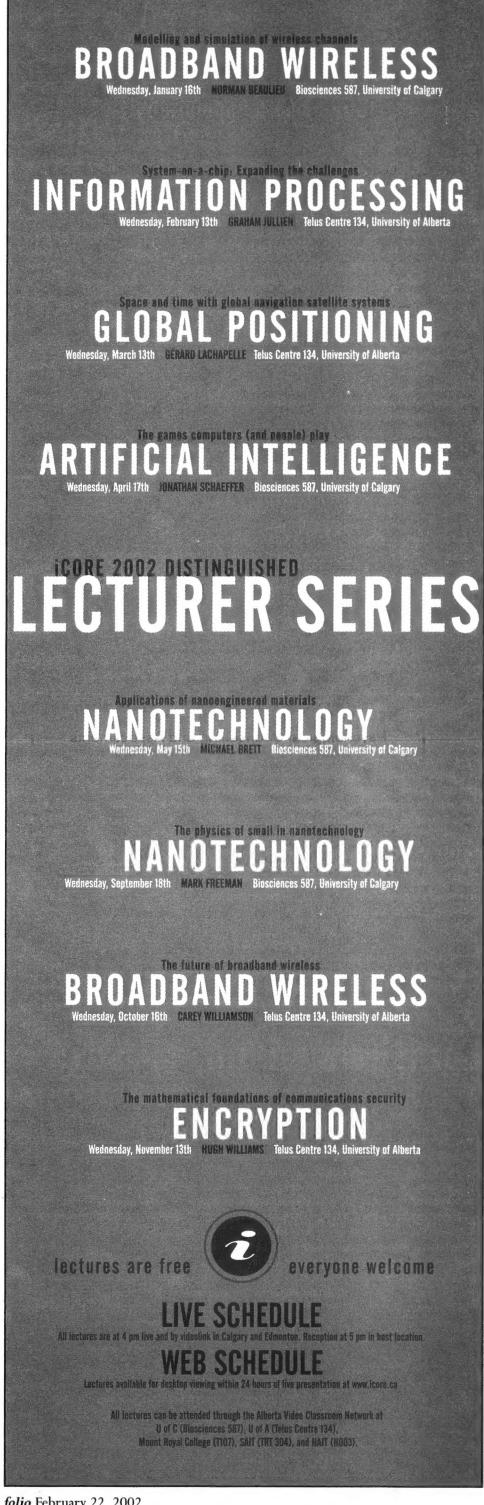
MARCH 5 TO 8

Agricultural, Food and Nutritional

Science. Western Canadian Dairy Seminar. Celebrating 20 years leadership in the dairy industry. The seminar informs and challenges those in the dairy industry to take a leading role in the development of the industry through the adoption of the latest technology and information available. For more information, please contact Joanne Morrison, 492-3236, or check Web site wcds@afhe.ualberta.ca. Capri Centre, Red Deer. Time varies each day.

MARCH 5

Department of Dentistry. Dr. Wolfgang Arnold, AHFMR Visiting Speaker, Chairman, Department of Anatomy, University of Witten/Herdecke, Germany, speaking on "The Effects of Fluoride on the Demineralization of Human Dental



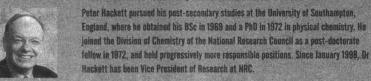


iCORE Board Appointments

The Alberta Informatics Circle of Research Excellence (iCORE) is pleased to announce the appointment of new board members.

Dr Peter Hackett

Vice President Research, National Research Council



Or Nackett has worked both at NRC and in the federal science and technology community to ensure that research organizations are managed to optimize creativity and relevance.

Dr Hackett is a world leader in applications of bigh-resolution laser photoelectron spectroscopy to inorganic chemistry. He has been recognized by the Noranda Lecture Award of the Canadian Society for Chemistry and by the Rutherford Medal of the Royal Society of Canada. He is a Fellow of the Chemical Institute of Canada, a Trustee of the Steacle Foundation, an Advisory Editor of Chemical Physics Letters, and a member of the Advisory Board of the International Journal of Research on Chemical Intermediates. He is an Adjunct Professor in Chemistry at the University of Toronto and at the University of Saskatchewan.

Mary Hofstetter

President and CEO, The Banff Centre



Mary Hofstetter was born and raised in Kitchener, Ontario. She holds a BA (Honours) in English and theatre arts from the University of Guelph, and an MA in English from the University of Western Ontario. She taught in England and Switzerland before returning to Canada where she held various positions at Ontario colleges, including founding Vice-President, Academic of Mohawk College.

In 1988, Ms Hofstetter was appointed President and Chief Executive Officer of Sheridan College. In 1996, she left Sheridan to assume the position of General Manager and Chief Operating Officer of the Stratford Festival. She resigned from the Festival in late 1998 to conduct consulting work. She assumed the position of Executive Vice-President and Chief Operating Officer of The Bauff Centre in July 1999 and was appointed President and CEO in May 2001.

She has served on a number of public and private sector boards including AT&T Canada, heard chair of the Canadian Boreau for International Education, Burlington Cultural Centre, K-W Art Sallery, Sallery/Stratford, Industry/Education Councils, Chair of the Ontario College Presidents and of the Canadian College Presidents Network. She has also served on many previncial government committees, most recently as a member of the Ontario Jobs and Investment Board.

J.R. (Relf) Sherlock

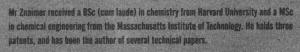
Manager Information Systems, PanCanadian Energy



Mr Sherleck received his hachelor degree in commerce from the University of Calgary, where he also instructed graduate level computing science courses. Additional technical and professional training from IBM and other organizations has covered a wide range of systems, practices, and industry solutions. He received numerous special awards from IBM and clients for technical and professional leadership including an IBM Canada Excellence Award for Leadership. Mr Sherlock has been active in many community volunteer activities.

Samuel Znaimer

Senior Vice President of Ventures West



Outside of chemistry and chemical engineering. Mr Znaimer has worked across a range of disciplines throughout the information technology and electronics fields during 16 years at Ventures West. He is responsible for Ventures West seed funding activities in its Western Technology Seed Investment Fund, and also actively leads investments in later stage companies. His interest and success in the target markets of software, development tools, and data communications have been shaped by a commitment to convey complex business strategies in accessible terms.

He serves on the boards of Burntsand Inc., IVI. Technologies, Spectrum Signal Processing Inc., and WaveMakers Research Inc.

www.icore.ca

Enamel." Room 4069 Dentistry/Pharmacy Building. From 12:00 noon to 1:00 p.m.

Lunch and Learn Presentation. "Stress: Make it Work for you." Presenter: John Betton, Wilson Banwell & Associates. Presented by the Health Recovery Support Unit. Location: Heritage Lounge, Athabasca Hall. From 12:00 p.m. to 1:00 p.m. Cost: Free! Snacks and beverages provided. To register or for more information contact Sarah Treby at 492-0659 or email: sarah.treby@hrs.ualberta.ca or visit Web site www.hrs.ualberta.ca/efap/news for an updated list of all workshops and other offerings.

Academic Support Centre. Workshop for students. "Time Management and Reading Strategies." 1:00 to 2:30 p.m. \$20. Call to register: 492-2682.

University Teaching Services. Todd Rogers, Centre for Research in Applied Measurement and Evaluation, presents "Exam Construction." Room 281 Central Academic Building. From 3:30 to 5:00 p.m.

MARCH 6

Career and Placement Services (CaPS).

Summer Career Fair – First ever! Admission is free – major networking and recruiting event. Dinwoodie Lounge, 2-000 Students' Union Building. From 10:00 a.m. to 4:00 p.m.

University Teaching Services. John Hoddinott, Biological Sciences, "Are we Different Teachers now?" Room 219 Central Academic Building. From 12:05 to 1:00 p.m.

University Teaching Services. Kent Rondeau, Public Health Sciences, presents "Reconnecting Your Teaching Methods With Student Learning." Room 281 Central Academic Building. From 3:00 to 4:30 p.m.

Academic Support Centre. Workshop for students. "Time Management and Reading Strategies." From 4:00 to 5:30 p.m. \$20. Call to register: 492-2682.

MARCH 7 AND 8, 2002

Department of Biological Sciences. Genetics 605 Seminar Series. Molecular Biology and Genetics Research Group. Dr. Thomas Grigliatti, Department of Zoology, University of British Columbia. Two seminars; Titles 1) "Insect Cells: A platform of human functional genomics" 2) "Chromatin packaging and the function of the HIS-C locus in Drosophila." Location on March 7, M-149, Biological Sciences Building. Location on March 8, M-145, Biological Sciences Building. Both days lectures are at 4:00 p.m.

MARCH 7

Department of Renewable Resources.

Landscape Ecology Seminar Series. Dr. Cordy Tymstra, Forester, Fire Science and Technology, Wildfire and Aircraft Operations Branch, Forest Protection Branch, Sustainable Resource Development, Government of Alberta, Edmonton, speaking on "Emerging Issues and Trends Impacting Fire Management in Alberta." Wyatt Lecture Room (236 Earth Sciences Building). From 12:30 to 1:50 p.m.

Centre for Research for Teacher

Education and Development. Seminar discussion hosted by the Centre for Research for Teacher Education and Development, Faculty of Education and the Mahatma Gandhi Canadian Foundation for World Peace. Wayne Gorman, Educational Policy Studies, speaking on "Peace is a Personal Attitude: A Lived Experience." Room 633 Education South. From 12:30 to 2:00 p.m.

University Teaching Services. Stanley Varnhagen, Academic Technologies for Learning, presents "Evaluating Online Courses." Room 281, Central Academic Building. From 3:30 to 5:00 p.m.

Department of Rural Economy. Seminar co-

sponsored by the Alberta Agricultural Economics Association. Guest Speaker Professor Ronald W. Cotterill, University of Connecticut, presents "Structural Models of Price Transmission in Imperfectly Competitive Market Channels." Room 134 Telus Centre. 4:00 p.m. Reception to follow.

Environmental Research and Studies Centre. The Last Great Forest Seminar Series. Dr. Grant Hauer, U of A, presents "The TRIAD Approach to Forest Landscape Management: Does it Make Economic Sense." Alumni Room, Students' Union Building. 4:30 p.m.

Career and Placement Services. Workshop "Creating Resumes and Cover Letters that Work!" Workshop fees range from just \$10 to \$20. Pre-register at CaPS, 2-100 Students' Union Building. For a complete list of upcoming events, check out Web site at www.ualberta.ca/caps. 4-02 Students' Union Building. From 5:00 to 8:00 p.m.

MARCH 8

School of Library and Information

Studies is pleased to announce the 16th annual Professional Development Day. Bruno Gnassi, Director of Canada's Depository Service Program, will be keynote speaker. Map Room, Lister Hall, 87 Avenue and 116 Street. Registration begins at 9:00 a.m. and opening remarks commence at 9:30 a.m. There is no charge for attendance.

Department of Biological Sciences. Ecology Seminar Series (part of the Biology 631 Seminar Series). Melissa Lareniere, Department of Biological Sciences, U of A, speaking on "Flow routing in glacial and non-glacial stream catchments at Bow Lake: implications for organochlorine transport." BS M-149, Biological Sciences Building. 12:00 noon.

John Dossetor Health Ethics Centre.

Research Ethics Education Forum, "The Challenge of Teaching Ethics to Researchers." Glenn Griener, Ph.D., John Dossetor Health Ethics Centre, Sharon Warren, Ph.D., Faculty of Rehabilitation Medicine, and Eleanor Stewart, Ph.D. (Candidate), Faculty of Rehabilitation Medicine. Room 207, Heritage Medical Research Centre. From 12:00 noon to 1:00 p.m.

University Teaching Services. Martin Palmer, Oncology, as part of a Brown Bag Lunch Series, presents "Examining our Assumptions: Improving the Teaching and Learning Experience." Room 219 Central Academic Building. From 12:05 to 1:00 p.m.

Student Counselling Services. Half-day workshop. "Balancing Your Needs With Those of Others." Register in advance by calling 492-5205 or visit our Web site for information on other services at www.ualberta.ca/~uscs. Location: 2-600 Students' Union Building. From 1:00 to 4:00 p.m.

Centre for Research on Literacy. Dr. Rita Oittinen, School of Modern Languages and Translation Studies, University of Tampere, Finland, speaking on "Translating the Visual: Picturebooks and Translation." Room 651a Education South. 3:00 p.m.

Earth and Atmospheric Sciences. Atlas Seminar. Ato Aubynn from the Department of Earth and Atmospheric Sciences will present "Sustainable mining and community perceptions of local mining operations in Ghana." Room 3-36 Tory Building. From 3:00 to 4:00 p.m.

MARCH 9

U of A Philosophers' Café: an opportunity for the public to engage in informal, lively conversation about philosophical or topical issues. Topic: "Religion, Power and Violence: what are the connections?" Guest scholar: Earle Waugh, Professor of Religious Studies. Moderator: Bernard Linsky, Chair of Philosophy. From 2:00 to 3:30 p.m. Location: Nina's Restaurant, 10139 – 124 Street.



We will cater your meeting, luncheon, or special functions. Quality and affordable catering on campus. Charge your catering

to your University account!

All general and catering information may be obtained at: Telephone (voice mail) 492-2090 e-mail: lexpress@su.ualberta.ca
www.su.ualberta.ca/lexpress



positions

The records arising from this competition will be managed in accordance with provisions of the Alberta Freedom of Information and Protection of Privacy Act (FOIPP).

The University of Alberta hires on the basis of merit. We are committed to the principle of equity of employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities, and Aboriginal persons.

HEALTH POLICY AND MANAGEMENT FACULTY OF MEDICINE AND DENTISTRY

The Department of Public Health Sciences, Faculty of Medicine and Dentistry, University of Alberta, is offering a full-time academic, contract position in Health Policy & Management. The position will be at the Assistant or Associate Professor level, rank and salary to be commensurate with experience, plus a comprehensive benefits package with an initial three-year contract. The selected individual will contribute to the teaching in the program's health technology assessment and health policy offerings, and will have his/her own research program in an area related to health technology assessment. An important component of the program will be for the individual to help further develop a program in which research is currently very active. There will be a unique opportunity to work with existing health technology assessment agencies in Canada.

The individual should have either a degree in a clinical subject with further graduate training in disciplines related to health technology assessment such as epidemiology and health economics, or else a PhD degree in an academic area related to health

technology assessments and with the policy environment surrounding them.

The Health Policy and Management program began a thesis-based masters degree in health policy that offers a concentration in health technology assessments. A number of faculty members have very active research programs in this and related fields, as well as extensive experience in working with these assessments in policy areas. The environment offers a great deal of opportunity for an individual who seeks to pursue an academic career in this area.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. If suitable Canadian citizens or permanent residents cannot be found, other individuals will be considered.

The competition will remain open until a suitable candidate has been found. The interested individual should send a letter of interest, a résumé, and curriculum vitae to:

Dr Steve E Hrudey, Acting Chair Health Policy & Management Search Committee Department of Public Health Sciences 13-103 CSB

Edmonton, Alberta CANADA T6G 2G3



Ads are charged at \$0.65 per word. Minimum charge: \$6.50. All advertisements must be paid for in full by cash or cheque at the time of their submission. Bookings may be made by fax or mail provided payment is received by mail prior to the deadline date. Pre-paid accounts can be set up for frequent advertisers. Please call 492-2325 for more information.

ACCOMMODATIONS FOR RENT

REAL ESTATE – Buy or Sell, Leases (Furnished/unfurnished). Janet Fraser or Gordon W.R. King. Telephone: (780) 441-6441. www.gordonwrkingassoc.com Gordon W.R. King and Associates Real Estate Corp.

DEVON ACREAGE, SPECTACULAR EXECUTIVE BUN-GALOW, 2,500 sq ft., two bedrooms, two fireplaces, 2.5baths. Country kitchen, sunroom. April 8, 2002 possession. \$2,200/month. Call Janet Fraser, Gordon W.R. King and Associates Real Estate, 441-6441.

MCKERNAN FURNISHED TWO STOREY. Three bedrooms, three full baths. Wood-burning stove in family room. Hardwood floor. Extensively upgraded. Single car garage. \$1,400/month. July 1, 2002. Call Janet Fraser, Gordon W.R. King and Associates Real Estate, 441-6441

CALL NOW! To buy, sell, lease a condominium. \$49,000 to \$450,000. Please ask for Connie Kennedy, condo specialist/consultant, since 1968. RE/MAX, 482-6766, 488-4000.

NORTH GLENORA: Homestay available, February 2002. Well-kept home. Furnished, many amenities. Owner travels. Non-smoker. 780-454-1385.

NEWLY RENOVATED 1,000 sq ft three bedroom bungalow. Third room converted to study. Hardwood floors, bay kitchen window, custom kitchen cabinetry. Jacuzzi bath. Five appliances. Single car garage. Beautifully landscaped backyard. Excellent location, quick 10 minute drive to U of A, University Hospital, downtown, Skyreach Centre. Two blocks from Bonnie Doon Mall. In quiet well-established residential area. \$975/month, utilities not included. Damage deposit \$975. Available to non-smoker individual/s. Contact Mark. 466-1681.

SPACIOUS DOWNTOWN ONE BEDROOM SUITE. Quiet adult condo. Convenient to U of A. \$650.00/month including parking. Perfect for grad student. For more info contact Barbara, 488-6477 or Ray, 699-1490.

FURNISHED THREE BEDROOM BUNGALOW. Laurier Heights. New kitchen/bathrooms. Hardwood throughout. Close to river valley trails. July 1, 2002 – May 31, 2003. \$1,500/month. Contact Margie or Bob, 484-1966.

ACCOMMODATIONS FOR SALE

VICTORIA PROPERTIES – knowledgeable, trustworthy, realtor with Edmonton references. Will answer all queries, send information, no cost/obligation. "Hassle-free" property management provided. (250) 383-7100, Lois Dutton, Duttons & Co. Ltd. #101 – 364 Moss Street, Victoria, B.C. V8V 4N1

SPACIOUS CONDOMINIUM, 1,700 sq ft., living room, dining room, eat-in kitchen, two bathrooms, two bedrooms, jacuzzi tub, sauna, one underground parking stall. \$169,900. Call Khrystia, 491-0317, evenings after 7:00 p.m.

RIVERWIND NEAR U OF A. Luxury hi-rise condo,

skyline river view. Two underground parking stalls included in price. Low \$200,000 Sask. Drive. Century 21 Platinum Realty, Diane Walker, 439-3300.

ACCOMMODATIONS WANTED

TWO-THREE BEDROOM HOUSE to rent, March 1, 2002 – July 31, 2002. Clean, responsible, non-smoking family. Crestwood, Valleyview or nearby areas preferred. Call 452-1150.

GOODS FOR SALE

CASH PAID for quality books. The Edmonton Book Store, 433-1781.

ORGANICALLY RAISED CHICKEN AND BEEF. Sunshine Organics, 780-848-2288 or 438-6271. Edmonton Delivery. Wonderful Product, sunorg@telusplanet.net

SERVICES

DAVE RICHARDS, Journeyman Carpenter, General Contractor. Complete renovations including plumbing and electrical. Custom cabinet work. No job too small. 436-6363.

BACK BASICS Remedial Massage Therapy. Supplementary Health Care coverage. 436-8059.

ALEXANDER EDITING. Nine years professional editing experience. Articles, theses, letters, proposals. Near campus. Email: nathan@interbaun.com, 433-0741.

Did you know?

Winter is the best time to remove a roof and renovate as snow is easier to manage than rain.

Trades people are more readily available during the winter months.

We like winter.

•31% of Canadian home owners would rather renovate than move. —CMHC



459-2011

Since 1981

Bonded·Licensed·BBB Member Insured·References·Free in-home estimates

Quality Service Guaranteed

For complete University of Alberta job listings visit: www.hrs.ualberta.ca/

notices

Please send notices attention Folio, 6th floor General Services Building, University of Alberta, T6G 2H1 or e-mail public.affairs@ualberta.ca. Notices should be received by 3 p.m. one week prior to publication.

NOMINATIONS FOR 3M TEACHING FELLOWSHIPS SOUGHT

Nominations for 3M Teaching Fellowships are now being accepted. The fellowships are awarded by the Society for Teaching and Learning in Higher Education and 3M Canada Inc. Any individual teaching at a Canadian university (regardless of discipline or level of appointment) is eligible. An exclusive three-day (Nov 2 - 4, 2002), all-expenses-paid retreat at the Chateau Montebello is the main component of the award.

Up to 10 awards are given annually. The University of Alberta has received 23 awards during the 16-year existence of the national 3M Teaching Fellowships Program.

Nomination forms are available at University Teaching Services, 215 Central Academic Building, 492-2826 or at the following Web site: http://www.john-molson.concordia.ca/stlhe. Dossiers are to reach the Society for Teaching and Learning in Higher Education by May 3, 2002, but if a letter from the Vice-President (Academic) is required, the nomination package must reach UTS by 12 noon, April 16, 2002.

John Dossetor Health Ethics Centre

University of Alberta

The Challenge of Teaching Ethics to Researchers

Sneakers

Glenn Griener, Ph. D. Research Ethics Education Forum, Dossetor Health Ethics Centre

A Representative from the Community Research Ethics Board of Alberta

Friday 8 March 2002

227 Medical Sciences Building

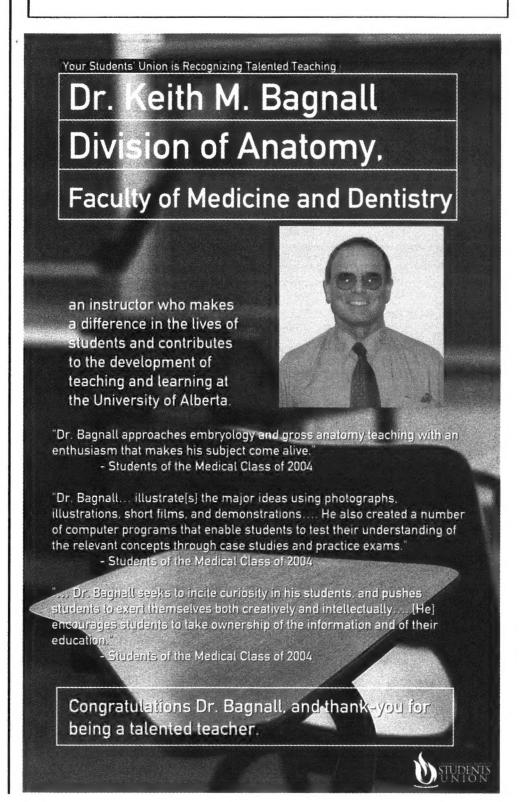
Noon - 1:00 pm

Everyone welcome!

A Bioethics Week Event

Lunch provided by Alberta Heritage Foundation for Medical Research

Information: 492-6676 www.ualberta.ca/BIOETHICS





BUILDING ON SUCCESS

Engineering opens state-of-the-art facilities

by Sandra Halme

Two years ago construction began on two new state-of-the-art engineering buildings. This week, eight months ahead of schedule, the Faculty of Engineering officially opened the \$65 million buildings, taking a step closer to becoming Canada's top teaching and research engineering school.

The Electrical and Computer Engineering Research Facility (ECERF) is a research facility which boasts the most advanced clean room complex of any university in Canada. The room is used for conducting cutting-edge nanotechnology research, an area expected to revolutionize robotics, genomics, health care, biotechnology, clean energy production, electronic and photonic devices, computing and information technologies, and engineered materials and manufacturing. The Engineering Teaching and Learning Complex (ETLC), including the Maier Learning Centre, provides technologically advanced classroom space for the more than 3,000 engineering students.

What went into the making of the buildings? Well, there's 4,000 computer network connections linked by enough

cable to stretch from here to Calgary and 30 km of fibre-optic cable. At its peak, the construction project employed 200 people.

The two new buildings will house instructional facilities and undergraduate laboratories building on the 40 educational programs currently offered by the faculty. Undergraduate engineering enrolment at the U of A has nearly tripled since 1972, placing the school in the top five per cent of all the 400 engineering schools in North America. The faculty expects to be Canada's largest by 2003.

"Opening these new facilities will build on our previous successes and will enable the Faculty of Engineering at the University of Alberta to make a major stride toward achieving our goal of being the premier centre for engineering research and education in North America," said Dr. David Lynch, dean of engineering.

"These buildings provide our students and researchers with a state-of-theart learning and research centre, ensuring our leaders of tomorrow are prepared to meet the demands facing engineers in our global community," said U of A President Dr. Rod Fraser.

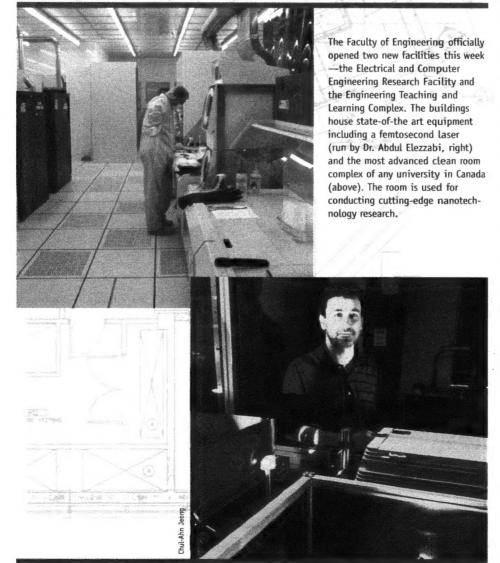
The Canada Foundation for Innovation's \$4.6-million investment to support the establishment of the ECERF is not only an investment in the future of electronic and computer engineering, it is

also "an investment in people," added Dr. David Strangway, president and CEO of the CFI. "This new research facility will ensure that the University of Alberta continues to attract and retain the best and brightest researchers, faculty and students."

ECERF is a seven-storey structure providing space for engineering research activities in the areas of information technologies, telecommunications, computer/software engineering, advanced laser applications, microelectronics, micofabrications, and nanotechnology. It will provide research and laboratory space for 60 engineering faculty members, 300 graduate students, 40 postdoctoral fellows and research associates and 20 associated support staff.

ETLC is a six-storey state-of-the-art teaching and learning facility housing nine major classrooms (with a total of 1,500 seats), four large computer laboratories (each with 68 seats), and several undergraduate instructional laboratory spaces. In addition, the building will contain 20 specialized undergraduate laboratories for electrical and computer engineering education.

The \$65 million in funding came from the Government of Alberta and the federal government's Canada Foundation for Innovation, as well as significant private, corporate and alumni support.



back page